

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

This draft ecological site description is approved for field use and testing for a one year period beginning MM, YYYY.
Additional information and comments on this site should be sent to the Utah State Range Management Specialist.

STATE: Utah

SITE TYPE: Rangeland

ECOLOGICAL SITE NAME: Upland Gravelly Loam (Mountain big sagebrush)

SITE NUMBER: 028AY306UT

MLRA: 028A

Original Site Description: Author: GR DJS

Date: 04/01/1988

Revised Site Description: Author: GR DJS

Date: 06/17/1993

Approved by: Title: State Range Cons. Signed: Pat Shaver

Date: 08/30/1993

Ecological Site Definition - A distinctive kind of land, with specific physical characteristics, which differs from other kinds of land in its ability to produce a distinctive kind and amount of vegetation, and in its response to management.

A. PHYSICAL CHARACTERISTICS

(description narrative of this particular site)

1. SOILS

Depth: 60 inches

Surface Textures: Moderately Coarse to Medium

Surface Fragments(<=3" % cover, >3" % cover): 15-35%

Subsurface Textures: Moderately Coarse to Moderately Fine

Subsurface Fragments(<=3" % vol, >3" % vol): 35-60%

Geologic Parent Materials: Alluvium and Colluvium from Mixed Parent Material

Moisture Regime:

Temperature Regime:

Runoff:

Permeability(min-max): Moderate to Moderately Rapid

Drainage Class(min-max): Well to Somewhat Excessively Drained

Water Erosion Hazard:

Wind Erosion Hazard:

Electrical Conductivity (EC in mmhos/cm):

Sodium Adsorption Ration (SAR):

Soil Reaction (1:1 water):

Soil Reaction (0.1 M CaCl₂):

pH Range:

Available Water Capacity (inches): 4-6

Major Soils Associated With This Site:

Soil Survey Area: 611

Abela GR-L, 2-8%

Kapod ST-L, 5-30%

Hupp GR-L

Bingham GR-L, 1-5%

Kilburn GR-SL, 2-10%

Additional information may be found in Section II of the Field Office Technical Guide.

1. Potential Plant Community Description and Ecological Factors

The general view of this site is big sagebrush-grass. The natural plant community is approximately 50 percent perennial grasses, 10 percent forbs, and 40 percent shrubs by air-dry weight.

2. Plant Community Composition by Weight and Percentage

Grasses and Grasslike, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Bluebunch wheatgrass	PSSP6		160	240	20	30
Nevada bluegrass	PONE3		80	120	10	15
Needleandthread	HECO26		24	40	3	5
Great basin wildrye	LECI4	1	8	24	1	3
Bulbous bluegrass	MEBU	1	8	24	1	3
Bottlebrush squirreltail	ELEL5	1	8	24	1	3
Blue grama	BOGR2	1	8	24	1	3
Other perennial grasses	PPGG	1	40	80	5	10
Other annual grasses	AAGG	1	40	80	5	10

Forbs, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High
Trailing fleabane	ERFL	2	8	24	1	3
Longleaf Phlox	PHLO2	2	8	24	1	3
Arrowleaf balsamroot	BASA3	2	8	24	1	3
Torrey milkvetch	ASCA9	2	8	24	1	3
Lobeleaf groundsel	SEMU3	2	8	24	1	3
Mountain desert parsley	LOGR	2	8	24	1	3
Spurred lupine	LUCAC3	2	8	24	1	3
Northern mulesears	WYAM	2	8	24	1	3
White wild onion	ALTE	2	8	24	1	3
Meadow thistle	CISC2	2	8	24	1	3
Showy false goldeneye	HEMU3	2	8	24	1	3
Longleaf hawksbeard	CRAC2	2	8	24	1	3
Low penstemon	PEHU	2	8	24	1	3
Other perennial forbs	PPFF	2	40	80	5	10
Other annual forbs	AAFF	2	40	80	5	10

Shrubs/Vines, %

Common Name	National	Group	Pounds per Acre	% by Weight of
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Ecological Site Name: Upland Gravelly Loam (Mountain big sagebrush)

Site Number: 028AY306UT

	Symbol				Total Composition	
			Low	High	Low	High
Mountain big sagebrush	ARTRV		160	200	20	25
Bitterbrush	PUTR2		40	80	5	10
Slender wild buckwheat	ERMI4	3	8	24	1	3
Spineless horsebrush	TECA2	3	8	24	1	3
Mountain snowberry	SYOR2	3	8	24	1	3
Low rabbitbrush	CHVI8	3	8	24	1	3
Granite pricklygilia	PEOV	3	8	24	1	3
Mormon tea	EPVI	3	8	24	1	3
Black sagebrush	ARNO4	3	8	24	1	3
Rubber rabbitbrush	CHNA2	3	8	24	1	3
Broom snakeweed	GUSA2	3	8	24	1	3
Other shrubs	SSSS	3	40	80	5	10

Trees, %

Common Name	National Symbol	Group	Pounds per Acre		% by Weight of Total Composition	
			Low	High	Low	High

3. Plant Community Annual Production

At the highest potential similarity index, this site will produce approximately the following amount of air-dry herbage, expressed as pounds/acre:

	Low	High
Favorable Year	900	1000
Average Year	700	800
Unfavorable Year	300	400

4. Ground Cover and Structure

a. Vegetative

Vegetation Type	Percent Canopy Cover	Height Range (ft)	Percent Basal Area Cover
Grasses & Grass-like (perennial)	20	2	10
Forbs (perennial)	5	1	5
Shrubs	15	3	10
Trees			
Cryptogams			

b. Other

Litter	
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Site Number: 028AY306UT

Coarse Fragments	
Bare Ground	

5. Ecological Dynamics of the Site

As ecological condition deteriorates due to overgrazing, bluebunch wheatgrass, needleandthread, and bitterbrush decrease, while big sagebrush, rabbitbrush and broom snakeweed increase.

Fire kills big sagebrush and bitterbrush but, low rabbitbrush and snakeweed increase.

Plant Communities & Transitional Pathways

(Show a steady state diagram with influences to move from one steady state to another)

6. Plant Growth Curves

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Percent Growth	0	0	0	10	30	45	5	5	5	0	0	0
Name	UT3061											
ID Number	PNC											
Description	Excellent Condition											

7. Aspect Differences Near MLRA Boundaries

(Give related range sites in MLRA's above and below)

8. Associated Sites Within MLRA

028AY308UT

Upland Loam (Basin big sagebrush)

028AY310UT

Upland Loam (Basin big sagebrush)

9. Correlated Sites in Other States

(Give site name and number)

D. MAJOR USES OF THIS SITE

1. Livestock

a. Site Factors Influencing Management

There is a wide diversity of species, but the greatest volume is grasses. This, then, is a valuable site for grazing during spring and early fall for cattle, sheep, and horses. Protein will be low in the forage if grazed in late summer or fall when the grasses will be dry.

b. Guide to Forage Quality(Plant preference by season)

Species	Oct-Nov	Dec-Feb	Mar-May	Jun-Sep

Site Type: Rangeland
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 Site Number: 028AY306UT

VG = Very Good G = Good F = Fair P = Poor

2. Wildlife

a. Site Factors Influencing Management

This site has fair values for rangeland and woodland and poor values for openland and wetland.

b. List of Potential Species Present

Species that find other food or cover for at least part of the year on this site are deer, antelope, coyotes, wildcats, quail, mourning dove, rabbits, songbirds, and several species of small mammals.

This is a short list of the more common species found. Many other species are present as well and migratory birds are present at times.

c. Guide to Forage Preference of Managed Wildlife Species

Wildlife Species →				
Plant Species ↓	Use	Season	Use	Season

Use - A = preferred or desirable
 B = some use, but less important
 C = little use or used occasionally

Season - F = Fall (Oct-Nov)
 W = Winter (Dec-Feb)
 Sp. = Spring (Mar-May)
 Su. = Summer (Jun-Sep)

3. Recreational Uses

This site has fair to good values for aesthetic and natural beauty. The floristic component is quite varied with a fairly large number of species of grasses, forbs, and shrubs. Hunting is fair for deer and a limited number of species of upland game birds. Potential is fair to poor for camping and picnicking.

4. Wood Products

None

5. Other Uses

E. THREATENED AND ENDANGERED SPECIES

1. Plants

Site Type: Rangeland
 Ecological Site Name: Upland Gravelly Loam (Mountain big sagebrush)
 Site Number: 028AY306UT
 2. Animals

F. MODAL LOCATION AND DOCUMENTATION

State: Utah County:
 Latitude: Longitude:

Modal Soil: Abela GR-L 2-8% — loamy-skeletal, mixed, mesic Aridic Calcixerolls

Type Location: SW ¼, SW ¼, Section 19, Township 2S, Range 3W

General Legal Description:

Field Office Site Location

Logan
 Provo
 Murray
 Cedar City
 Richfield

Data Collected and References

Sampling Source	Number of Records	Range Similarity Index			
		> 76%	51-75%	26-50%	0-25%
NRCS - ECS - 417	11				
UTAH - RANGE - 2					
Permanent Transect Location					

Other References